

ETHIOPIAN LYGAEIDAE I:
THE GENUS AULACOPELTUS (STAL)
(HEMIPTERA: HETEROPTERA)

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The members of this genus are among the largest insects included in the family Lygaeidae. Individuals run to nearly 20 mm. in length, are chiefly black and orange in color and are confined in distribution to the Ethiopian region.

During the course of work underway upon various aspects of the taxonomy of the Lygaeidae of Africa, it has become apparent that certain changes and modifications are necessary in our understanding of the genus *Aulacopeltus*. The present paper discusses generic synonymy, presents a key to the species and describes a new species from Kenya.

Aulacopeltus (Stal)

Aulacopeltus Stal, 1868. Hemip. Fabr. 1: 75.

Aulacopeltus Stal, 1874. Enum. Hemip. 4: 98 & 100.

Rhodesia Distant, 1911. Ann. So. Afr. Mus. 10: 41.

Cryptocara Bergroth, 1916. Wien. Ent. Zeit. 35: 221.

Aulacopeltus Villiers, 1952. Hemip. Afr. Noire, p. 113.

Cryptocarella Slater, 1957. Bul. Brooklyn Ent. Soc. 52: 36. **New synonymy.**

Type species: *Lygaeus excavatus* Fabricius, 1781. Monobasic.

The members of the genus *Aulacopeltus* are readily recognizable by the unique nature of the scutellum which is strongly swollen, and possesses a deep and broad median longitudinal trough. The pronotum is provided with a median carina that is usually somewhat enlarged at the apical margin, in some species very strongly so. The posterior pronotal margin laterad of the base of the scutellum is produced posteriorly as a pair of distinct depressed lobes. The labium is elongate, extending well onto the abdominal sternum.

Aulacopeltus is most closely allied to *Oncopeltus* showing its affinities in the swollen scutellum, the shape of the pronotum and in general habitus.

Distant (1911) distinguished his genus *Rhodesia* from *Aulacopeltus* by the former having the head entirely concealed beneath

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the inflated anterior portion of the pronotum. The subsequent nomenclatorial history of this generic name has been unfortunate. Bergroth (1916) noted that *Rhodesia* was preoccupied and re-named the taxon *Cryptocara*. Slater (1957) found that *Cryptocara* itself was preoccupied and again renamed the taxon as *Cryptocarella*. I have now examined what appears to be the unique type of *Rhodesia durbani* which is a female in the South African Museum at Capetown bearing the following labels: 1. "*Rhodesia durbani* Dist.", 2. "Natal. D'urban.", "N. Barker 1894" (on reverse side of label), 3. "Unique". Distant did not indicate where his specimen was deposited but presumably it was in the South African Museum. The specimen fits his description in all details. This specimen is a true *Aulacopeltus* in all essential respects. The anterior portion of the pronotum is indeed greatly inflated, much more so than in any other member of the genus, but *A. kilimandjariensis*, n. sp., also has a "hood" of considerable size (Fig. 3). The pronotal inflation is certainly only of specific value. The scutellum in *durbani* is somewhat crushed but its inflated nature is evident. *Cryptocarella* Slater is therefore synonymized with *Aulacopeltus* (Stal).

As noted above, the genus *Aulacopeltus* is confined in distribution to Africa and has hitherto been known only from the tropics. The inclusion of *durbani* in the genus extends the range southward to Natal where the presence of the genus must be interpreted as the southward extension of an essentially tropical element.

The genus at present is composed of four species, *excavatus* (F.), *minor* Distant, *durbani* (Distant), *kilimandjariensis*, n. sp.

KEY TO SPECIES

1. Anterior mesal margin of pronotum strongly swollen and raised into a "hood-like" convexity (Fig. 3) 2
- Anterior portion of pronotum slightly elevated and enlarged, never strongly rounded nor having a "hood-like" appearance (Figs. 1, 2) 3
2. Hood-like anterior portion of pronotum extremely large, extending forward over base of head nearly to base of tylus; corium orange-red, with small black patch near base; pleural area adjacent to base of coxae dark, nearly uniform in color with remainder of pleuron *durbani* (Dist.)
- Hood-like area of pronotum much less strongly expanded (Fig. 3), head visible from above at least to area of ocelli; corium black or dark fuscous from base to beyond apex of

scutellum; pleural areas adjacent to coxae pale, contrasting with dark coloration of remainder of pleuron.

kilimandjariensis, n. sp.

3. Postero-lateral angles of pronotum strongly flanged and extended posteriorly (Fig. 2.) *excavatus* (F.)
 Postero-lateral pronotal angles very slightly produced posteriorly (Fig. 1.) *minor* Dist.

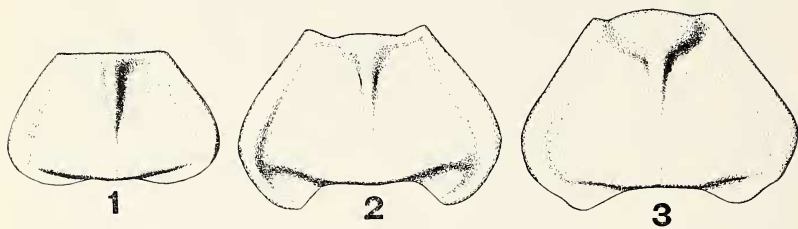


Fig. 1. Pronotum of *Aulacopeltus minor* Distant. Fig. 2. Pronotum of *A. excavatus* (F.). Fig. 3. Pronotum of *A. kilimandjariensis*, n. sp.

Aulacopeltus durbani (Dist.)

Rhodesia durbani Distant, 1911. Ann. So. Afr. Mus. 10: 41.

Cryptocara durbani Bergroth, 1916. Wien. Ent. Zeit. 35: 221.

Cryptocarella durbani Slater, 1957. Bul. Brooklyn Ent. Soc. 52: 36.

A. durbani is more closely related to *A. kilimandjariensis*, n. sp., than to the other members of the genus. Despite the fact that the inflated anterior portion of the pronotum is not of generic value it nevertheless is tremendously developed in *durbani* and will serve readily to distinguish this species. The "hood" is over three times as high in *durbani* as in *kilimandjariensis*. In addition, *durbani* has only a small dark spot near the base of the corium whereas in *kilimandjariensis* the entire basal half of the corium is black. Both species have a dark subquadrate pronotal patch on either side of the median ridge, black apices of the corium and black membrane.

A. durbani appears to be a very rare species for despite its large size and vivid black and red coloration no specimens other than the type specimen have been seen. Material examined: type female, D'urban, Natal as noted in generic discussion; in South African Museum.

Aulacopeltus kilimandjariensis, n. sp.

General coloration yellowish ochraceous, marked with reddish brown on median area of vertex; a broad area on pronotum on

either side of median carina from behind area of calli to pronotal base, basal one-third of scutellum, basal one-half and apical one-fourth of corium shading from reddish brown to almost black fuscous; laterally on vertex adjacent to eyes, rectangular area about calli, extreme base of scutellum, entire membrane, broad patches on thoracic pleura, last abdominal segment and narrow triangular patches on lateral margins of preceding abdominal sternites (these becoming obsolete on anterior segments), blackish; remainder of venter bright orange; all appendages uniformly dark fuscous; a few weak scattered punctures on pronotal disc and mesally on scutellum; clothed rather thickly with very short, inconspicuous decumbent reddish brown to yellowish hairs.

Head subtriangular, very slightly declivent, ocelli set much closer to eyes than to one another, first antennal segment exceeding apex of tylus by nearly one-half its length, eyes in contact with anterolateral pronotal angles. Length of head 1.55 mm., width across eyes 2.40 mm., interocular space 1.60 mm. Pronotum with a strongly developed median carina that becomes lower posteriorly and anteriorly expands into a broad convex hood-like area anterior to the calli; lateral margins very strongly narrowed anteriorly, broadly rounded in area of humeri and tumid or thickened laterally; posterior margin nearly straight in mesal area with excavated and strongly produced posterior lobes laterally (these, however, less strongly developed than in *A. excavatus* F.). Length of pronotum 3.10 mm., width 5.00 mm. Scutellum tumid, with the characteristic central excavation, length 2.85 mm., width 2.45 mm. Hemelytra with lateral corial margins convex and broadened posteriorly, with greatest width slightly beyond apex of scutellum, abdomen completely covered by hemelytra, membrane somewhat exceeding apex of abdomen, distance apex clavus-apex corium 3.40 mm., distance apex corium-apex abdomen 3.20 mm. (approx.). Posterior margin of metapleuron straight, legs not incrassate, mutic; labium extending onto abdominal sternite three (second visible sternite), first segment extending posteriorly to anterior edge of fore coxae, second segment reaching mesocoxae, third segment extending onto basal area of abdomen. Length of labial segments: I 2.00 mm., II 1.90 mm., III 1.85 mm., IV 1.35 mm. Antennae rather robust but linear throughout. Length of antennal segments: I 1.05 mm., II 2.65 mm., III 2.25 mm., IV 2.65 mm. Total length 13.00 mm.

Holotype: ♂, East Africa, Kilimandjaro, Sept. 22, 1905-6 (Sjostedt), in Stockholm Museum. *Paratypes*: 1 ♂, 1 ♀, East Africa, Kilimandjaro, Kibonoto, 2000-3500 m., Sept., 1905-6

(Sjostedt), in Stockholm Museum and author's collections.

Differs from *A. excavatus* (F.) by the less strongly flanged caudo-lateral expansions of the posterior pronotal margin, the darkened basal half of the corium and the characters mentioned in the preceding key.

Aulacopeltus excavatus (F.)

Cimex excavatus Fabricius, 1781. Spec. Ins. 2: 365.

Cimex excavatus Fabricius, 1787. Mant. Ins. 2: 301.

Cimex excavatus Gmelin, 1788. Syst. Nat. I. 4: 2174.

Lygaeus excavatus Fabricius, 1794. Ent. Syst. 4: 160.

Lygaeus excavatus Fabricius, 1803. Syst. Rhyng. p. 226.

Lygaeus excavatus Stal, 1865. Hemip. Afr. 2: 126.

Aulacopeltus excavatus Stal, 1874. Enum. Hemip. 4: 100.

Aulacopeltus excavatus Villiers, 1952. Hemip. Afr. Noire, p. 113.

This, the type species, is a large, brightly colored, orange and black insect. In specimens examined the corium is orange with the membrane and extreme apex of the corium black. The pronotum (Fig. 2) is only slightly swollen anteriorly along the median ridge. Lateral lobes of the posterior pronotal margin are very strongly developed, more so than in any other species of the genus. The pleural areas adjacent to the coxae are dark and unicolorous with the remainder of the pleuron. The legs are bright reddish brown.

I have examined the specimens from the Stockholm Museum studied by Stal and presumably from Central Africa.

Aulacopeltus minor Distant

Aulacopeltus minor Distant, 1905. Ann. So. Afr. Mus. 3: 57.

This species resembles *excavatus* in coloration and in lacking a strongly swollen anterior pronotal margin. It is a somewhat smaller species with very weakly developed lobes laterally on the posterior pronotal margin. The labium is very elongate, its third segment exceeding the hind coxae by more than one-half its length. The corium is uniformly light reddish orange except the extreme apex. The pleuron has large pale areas. The pronotum is marked with a dark ray close on either side of the pronotal ridge. The head is extensively darkened laterally. In one specimen studied the apical one-half of the scutellum is fuscous and the corium rather obscurely suffused with reddish brown.

A. minor was originally described from Nyasaland. Specimens from the Belgian Congo have recently been examined.

ACKNOWLEDGEMENTS

Sincere appreciation is extended to Dr. Norman T. Davis of the University of Connecticut for the preparation of illustrations used in the present paper and to Dr. Rene Malaise of the Stockholm Rijksmuseum and Dr. A. J. Hesse of the South African Museum for the loan of valuable material in their respective institutions.

**A NEW PRIMITIVE PTILOMERA FROM THE
HIMALAYAS AND OTHER NOTES
(GERRIDAE, HEMIPTERA)**

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In 1843 Amyot and Serville in their "Histoire Naturelle des Insectes, Hémiptères", p. 413, described the genus *Ptilomera* for "*Gerris laticauda* Hardw. (Trans. Linn. Soc. 16: 131)" and gave as localities "Java, Du Nepaul, suivant Hardwich". They made several mistakes. First, Major General Hardwicke described *Gerris laticaudata* (not *G. laticauda*) from Nepal and figured on Plate VI, p. 136, a winged adult and an apterous male that he labeled as larva. His types that remain in the British Museum are two males (one apterous and one macropterous). They were studied by Dr. Lundblad (1933). Amyot and Serville on Plate VIII, fig. 3, gave a colored figure of an adult apterous male, which they labeled "*Ptilomera laticauda* Hardw.". Yet they say in their description of the genus "Nous connaissons ce genre que a l'état de larve". Fortunately their figure gives the general facies of the male *Ptilomera*, but if it comes from Java we believe it was misidentified.

From Dr. Lundblad's drawings of the male type of *Ptilomera laticaudata* Hardwicke (Zur Kenntnis der aquatilen und semi-aquatilen Hemipteren von Sumatra, Java und Bali, Archiv für Hydrobiologie, Suppl. Bd. 12, Tropische Binnengewässer IV, p. 412, 1933) we are inclined to believe that the species is confined to Nepal and eastward in the Himalaya mountains.

We have found in the Torre-Bueno collection purchased by the University of Kansas some years ago four specimens bearing the

* Contribution No. 1,001 from the Department of Entomology, University of Kansas. This report is a by-product of a project conducted with the aid of a grant from the National Science Foundation.